



# Space Students

## High school students from Wales visit JSC, learn space science

By Natasha Calder

Employees around JSC opened their doors this summer to Welsh students as part of the International Space School Foundation's space scholarship program, and provided an insight into space to future scientists.

The ISSF program is a cooperative project intended to share the tangible scientific benefits of NASA's space programs with the international high school community in an attempt to get students excited about the benefits of space travel and related educational spin-offs. The program has attracted attention from local space related institutions and organizations, as well as the JSC community.

The enthusiastic endorsement of the program gave Mary Fairclough and Gordon Smith, seniors at Stanwell high school in Penarth, South Wales, the opportunity to observe the day-to-day operations of JSC, its contractors and Space Center Houston for a week in August. Both said the experience was enjoyable as well as inspiring.

"I feel incredibly fortunate to have had the opportunity to visit the Clear Lake area and its space community," Fairclough said. "The visits to the Johnson Space Center and the various contractors allowed me to see first hand the workings of such an effective and sophisticated organization such as NASA. During my three weeks in Houston, I have learned a tremendous amount which will be of great value to me, both immediately in my current studies, and also, perhaps more importantly, of use to me in higher education and future employment."

"I am extremely pleased to have taken part in what I feel to be the most exciting and stimulating three weeks of my life," Smith said. "I am grateful to the program



for inspiring me to continue my studies with even greater enthusiasm."

Fairclough and Smith had the added pleasure of being present at JSC at a time when the announcement of possible life on Mars was released. The students sat in on the press conference Aug. 7, and were given the opportunity to visit the lunar sample labs and examine various moon rocks and Martian meteorites.

"It was tremendous for me to have witnessed after so long, science fiction becoming science fact," Smith said. "We were able to be at the press conference, where we learned close hand how much new information a fist-sized rock could yield to our understanding of Mars."

Another highlight for the foreign visitors was a presentation by Astronaut John Young on his experiences and hopes for the future of space travel. "Young seemed to personify the general excitement all NASA workers feel for the current work they are doing, and the plans they have for the future," Fairclough said.

The students were able to experience other areas of NASA with the help of other students working on site as cooperative education students. By shadowing various co-op students throughout the week, Fairclough and Smith were given some in-depth tours into various areas of interest around the center, like the Biology Laboratories, the Crew and Thermal Systems Division and the Regenerative Life Support Area.

"The combination of these experiences has helped me put together in my mind the values of my schoolwork and how it has a relevance and application in the real world," Smith said.

"Of the most practical use to me in my current studies was the visit to the Biochemistry department," Fairclough said. "I was fascinated by the hands-on

research being carried out both there and in many other departments at NASA as well."

Other areas that opened doors to the students were the Plasma Rocket Propulsion Laboratory, Robotics Laboratory, Manufacturing Workshops, Life Support System Laboratory, the new Weightless Environment Training Facility, Ellington Field and Mission Control, among others.

"I was particularly impressed by the attitude of the employees that I saw at NASA, both the workers and the co-op students," Fairclough said. "The sense of teamwork was particularly strong. Everyone who I met showed a real delight in their work and a pride that every task is part of the whole that makes the space program work. The working atmosphere was one that I had never experienced before — friendly and welcoming, yet extremely efficient and conducive to working."

Fairclough and Smith also found time to enjoy some of the local culture around the JSC area, learning how to row in Clear Lake, and compare the latest in music, movies and sports during a co-op lunch off site. The two also had the opportunity to work as camp councilors at Space Center Houston and visit the Natural History Museum, among other activities.

The ISSF which made Fairclough's and Smith's experiences possible is the brain child of local business owners Geoff and Annette Mules, who also originate from Penarth. The Mule's non-profit foundation, now in its third year, aims to provide pre-collegiate students, selected by open competition, with an understanding of the space industry through work shadow, class room sessions and site visits. The program also promotes an appreciation for the international collaboration neces-

sary for penetrating the expansive opportunities of space exploration and research. To this end, the Mules intend to expand the program next year to accommodate 32 young adults from 16 countries for three weeks each summer.

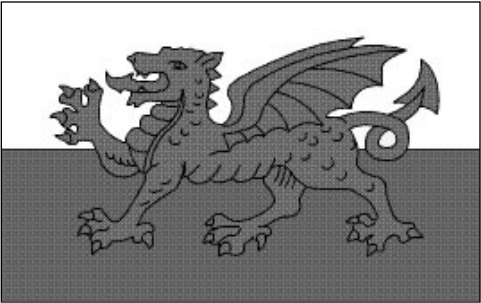
The Mules hope to expand the program to include local universities and additional institutional resources. Currently, the three week program is broken down into a week spent in core lectures with industry field trips, a second week spent in specialized lectures and a hands-on design/research project, and a third week spent with the students taking a turn at teaching elementary school children about space at Space Center Houston.

As for Fairclough and Smith, they have returned to South Wales after their three weeks in the program with a fresh and well informed perspective on the nature and importance of NASA, together with a new sense of purpose in their own lives. The students will never forget their experiences at JSC, and it could well inspire them both to work for a career in space research and space technology.

"I am aware how few students of my age have the opportunity to observe so many different components of the space program in action," Fairclough said. "My experiences have really opened my eyes to the exciting and vital practical applications of science and technology."

"These three weeks have given me not only a greater understanding into the workings of NASA's scientists, but also the most memorable and exciting time of my life," Smith said. "I know how fortunate I am to have been part of this program, and only hope that future students will enjoy the experience as much as I have."

For more information on the ISSF program, call Geoff Mules at 472-7114. □



From top to bottom, left to right: 1) From left, Welsh students Gordon Smith and Mary Fairclough check out lunar samples. The students spent two weeks at JSC learning career options of the space industry. 2) Fairclough examines the Mars meteorite. The students were able to take part in the announcement of possible life on Mars by attending press briefings in Bldg. 2. 3) Tours include a hands-on tour of Ellington Field. From left Fairclough and sponsor Anya Richards examine a T-38 while Doug Bradt of Dynacorp explains the cockpit layout. 4) From left, sponsor Geoff Mules, Fairclough, Bradt, sponsor Annette Mules, Richards and Smith take time out during the Ellington Field tour.